

(12) **United States Patent**
Garza et al.

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(54) **EMBOLIC FRAMING MICROCOILS**

(56) **References Cited**

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(57) **ABSTRACT**

(51) **Int. Cl.**

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An embolic microcoil can be formed into a complex shape for use in treating aneurysms and other vascular disorders. The microcoil features a distal portion including several loops that together comprise a substantially spherical shape, and an elongated proximal portion that is deployable within the distal portion. The distal portion can create a stable frame with adequate loop coverage across a neck of the aneurysm. The proximal portion can include a series of substantially omega-shaped loops, which can apply a force against the interior of the substantially spherical shaped distal portion, expanding it into apposition with additional portions of the aneurysm wall. Methods of treating vascular disorders and methods of manufacturing certain microcoils are also disclosed.

(52) **U.S. Cl.**

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(58) **Field of Classification Search**

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See application file for complete search history.

21 Claims, 11 Drawing Sheets

